

REMARKS

Status of the Claims

Claims 1-18 are pending. New claims 19 and 20 have been added. No new matter is added.

Claim Rejections – 35 USC § 103

Claims 1-4, 11, and 12 are rejected under 35 USC 103(a) as being unpatentable over Hahn et al (GB 2,357,101 A) alone. The Office has quoted the statute from 35 USC 103(a), which is referenced herein. Applicant has carefully considered the Office rejections and respectfully submits that the amended claims, as supported by the arguments herein, are distinguishable from the cited reference.

According to the MPEP §2143.01, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art."

A useful presentation for the proper standard for determining obviousness under 35 USC §103(a) can be illustrated as follows:

1. Determining the scope and contents of the prior art;
2. Ascertaining the differences between the prior art and the claims at issue;
3. Resolving the level of ordinary skill in the pertinent art; and
4. Considering objective evidence present in the application indicating obviousness or unobviousness.

Applicant repeats Claim 1 as amended for convenience:

Claim 1. A method for drilling and lining a subsea well, comprising:
drilling a subsea bore;

pre-installing at least one liner with a larger external diameter than the substantial part of a drilling riser not yet installed;
installing the drilling riser;
drilling a bore hole section after the drilling riser has been installed, the bore hole section having a larger diameter than the at least one pre-installed liner; and
lowering the at least one pre-installed liner into the bore hole section.

The claim as amended clearly requires in order: a subsea bore; the installing of a liner at the bore site prior to installation of the riser; the installing of a riser of smaller diameter than the liner connecting the bore site to a rig at the surface, and the subsequent drilling of a further bore section and lowering of the liner into the new section. Among what is new here is the pre-installation of a liner at a subsea bore site and subsequent installing of a riser extending from the seabed towards the surface that is of a smaller diameter than the liner, as is distinguished from conventional subsea drilling operations. This is part of what enables the full potential of this technology as is described in the specification.

Applicant has reviewed Hahn in the context of claim 1 and respectfully disagrees with the Office's selection and interpretation of the scope and contents of Hahn, and its conclusion about the differences between Hahn and the claimed invention.

For example, the Office asserts Hahn to illustrate a pre-installed liner 120, which is shown as extending through casing 112 and its lower section 114. Applicant cannot ascertain where the "pre-installed" characteristic of liner 120 is found, but notes that Hahn's liner 120 is described at p. 4, line 16 as "extends to the rig at the surface 167." Obviously, *if* it were passing through a riser enroute to the drilling rig, it would have to be of smaller diameter than the riser.

The Office then at page 2 acknowledges Hahn to not disclose the diameter of the alleged riser relative to the liner, and asserts that since the liner 120 is pre-installed, the diameter of the alleged riser does not affect that of the liner and it could be smaller or larger than the diameter of the liner as design dictates. Applicant asserts this to defy logic, given that the Hahn liner 120

extends to the drilling rig, and if there were a riser, it would have to be small enough to pass through it.

Applicant submits that Hahn is lacking in specificity and detail such that one skilled in the art would not readily comprehend any form of subsea drilling operations, and in particular the Applicant's claimed methods and systems, without undue experimentation and therefore is inoperable as a prior reference for the features relied upon by the Office. This is so because Hahn is clearly not describing or illuminating of a subsea drilling operation and does not understand, need, use or contemplate in any way the necessity or the limitations of using an ocean riser system. Office refers to Hahn at p. 1 line 30+ with reference to the Applicant's "drilling riser"; however a drilling riser in the context of this application is clearly understood to be a tubular structure extending from the seabed to near the sea surface through which subsea drilling operations are conducted. Moreover an ocean riser is not a trivial device. The technical challenges of subsea drilling and the deployment and use of risers in an ocean environment is a dramatic departure from land-based drilling, raising the cost, risk and complexity immensely. Hahn does not offer any teaching, suggestion or motivation extending to if, where or how an ocean riser system might be employed.

In light of the amendments to claim 1 and these remarks, Applicant requests the rejection of claim 1 and all claims dependent thereon be withdrawn, asserts the dependent claims 2-4, 11 and 12 to be allowable at least on the basis of being further limitations to allowable base claim 1, and requests reconsideration.

Claims 5, 7-10, and 13 are rejected under 35 USC 103(a) as being unpatentable over Hahn alone, for substantially the same reasons as above. Applicant incorporates its comments from above about 35USC103, Hahn, and claim 1, and remarks further as follows.

Claim 5 as amended requires a subsea well bore, a subsea well head, a subsea surface casing, a drill string, an expandable drill bit, a drilling riser, and at least one liner with a larger

external diameter than the substantial part of the drilling riser, where the liner is pre-installed in a position below a substantial part of the drilling riser.

The system of claim 5 can only as a practical matter be assembled by the method of claim 1 as amended, which the Applicant has already argued to be patentable over Hahn. The expandable drill bit being adapted for insertion through the liner, expansion below the liner, and drilling of a bore hole section adapted to receive the liner, is novel in the context of the smaller diameter riser, is a further limitation, and cannot negate the allowability of this claim. Applicant asserts dependent claims 7-10 and 13 to be allowable at least on the basis of being further limitations of an allowable base claim, and requests the rejection be withdrawn as to claim 5 and all claims dependent thereon.

New claim 19 is merely a further limitation of the order of elements of claim 5, and adds no new subject matter, and should be allowable at least by reason of being a further limitation on allowable claim 5.

Claims 6 and 14-18 are similarly rejected under 35USC103(a) as to Hahn alone. Applicant incorporates its comments from above and notes further as follows. Claim 6 as amended requires a subsea well bore, a subsea well head, a surface casing, a drill string, a drill bit, a drilling riser, and at least one liner with a larger external diameter than the substantial part of the drilling riser being pre-installed in a position below a substantial part of the drilling riser.

The system of claim 6, as in the system of claim 5, can only be assembled as a practical matter by the method of claim 1, which the Applicant has already argued to be patentable over Hahn. The further limitation of the drill bit having a diameter larger than the liner and being pre-installed below the liner, and the drill bit being adapted for drilling of a bore hole section adapted to receive the at least one liner, is novel in the context of the smaller diameter riser, and cannot negate the allowability this claim or the claims dependent thereon. Applicant requests the rejection be withdrawn and all claims be reconsidered.

New claim 20 is merely a further limitation of the order of elements of claim 6, and adds no new subject matter, and should be allowable at least by reason of being a further limitation on allowable claim 6.

Applicant believes the above amendments and remarks to be fully responsive to the Office Action, thereby placing this application in condition for allowance. No new matter is added. Applicant requests speedy reconsideration, and further requests that Examiner contact its attorney by telephone, facsimile, or email for quickest resolution, if there are any remaining issues.

Respectfully submitted,

/Vernon C. Maine, Reg. No. 37,389/

Cus. No. 24222
Maine & Asmus
PO Box 3445
Nashua, NH 03061-3445
Tel. No. (603) 886-6100, Fax. No. (603) 886-4796
Info@maineandasmus.com

Vernon C. Maine, Reg. No. 37,389
Scott J. Asmus, Reg. No. 42,269
Andrew P. Cernota, Reg. No. 52,711
Kristina M. Grasso, Reg. No. 39,205
Attorneys/Agents for Applicant